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CSC 174 - Advanced Database Management Systems

Dr. Yin Jin

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Assignment 3

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Create Table Statements

Student Table

```
mysql> CREATE TABLE Student
-> (SSN CHAR(9),
-> StudentName VARCHAR(30),
-> Address VARCHAR(30),
-> Email VARCHAR(30),
-> PRIMARY KEY (SSN));
Query OK, 0 rows affected (0.04 sec)

mysql>
```

TA Table

```
mysql> CREATE TABLE TA
-> (SSN CHAR(9),
-> Salary INTEGER,
-> FOREIGN KEY (SSN) REFERENCES Student(SSN));
Query OK, 0 rows affected (0.02 sec)

mysql>
```

Course Table

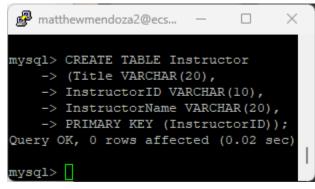
```
mysql> CREATE TABLE Course
-> (CourseNo VARCHAR(7),
-> CourseName VARCHAR(20),
-> NoOfStudents INTEGER,
-> InstructorID VARCHAR(10),
-> TASSN CHAR(9),
-> PRIMARY KEY (CourseNo),
-> FOREIGN KEY (TASSN) REFERENCES TA(SSN));
Query OK, 0 rows affected (0.02 sec)
```

Enrolled Table

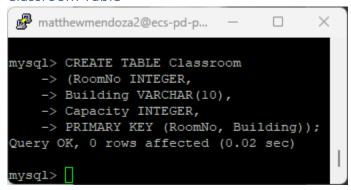
```
mysql> CREATE TABLE Enrolled
-> (SSN CHAR(9),
-> CourseNo VARCHAR(7),
-> GRADE CHAR(1),
-> PRIMARY KEY (SSN, CourseNo),
-> FOREIGN KEY (CourseNo) REFERENCES Course(CourseNo));
Query OK, 0 rows affected (0.04 sec)

mysql>
```

Instructor Table



Classroom Table



OnlineCourse Table

```
mysql> CREATE TABLE OnlineCourse
-> (CourseNo VARCHAR(7),
-> URL VARCHAR(50),
-> FOREIGN KEY (CourseNo) REFERENCES Course(CourseNo));
Query OK, 0 rows affected (0.02 sec)

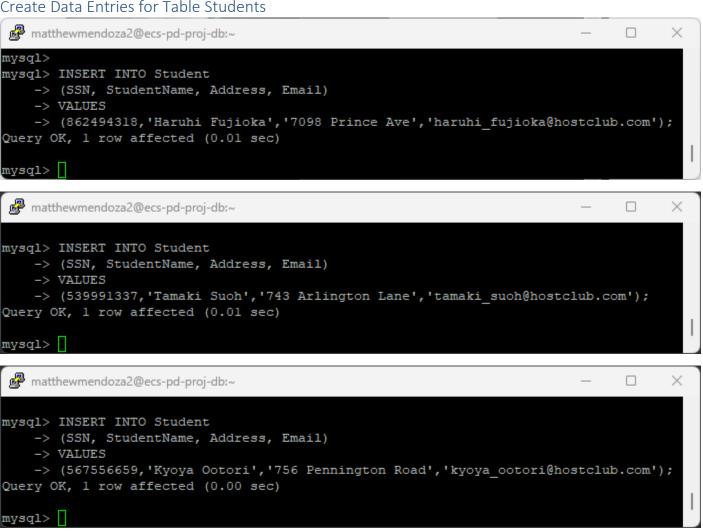
mysql>
```

InPersonCourse Table

```
matthewmendoza2@ecs-pd-proj-db:~
                                                                      \times
mysql> CREATE TABLE InPersonCourse
    -> (CourseNo VARCHAR(7) REFERENCES Course(CourseNo),
   -> RoomNo INTEGER,
   -> Building VARCHAR(10),
   -> ClassTime VARCHAR(7) NOT NULL,
    -> FOREIGN KEY (RoomNo, Building) REFERENCES Classroom(RoomNo, Building));
Query OK, 0 rows affected (0.03 sec)
mysql>
```

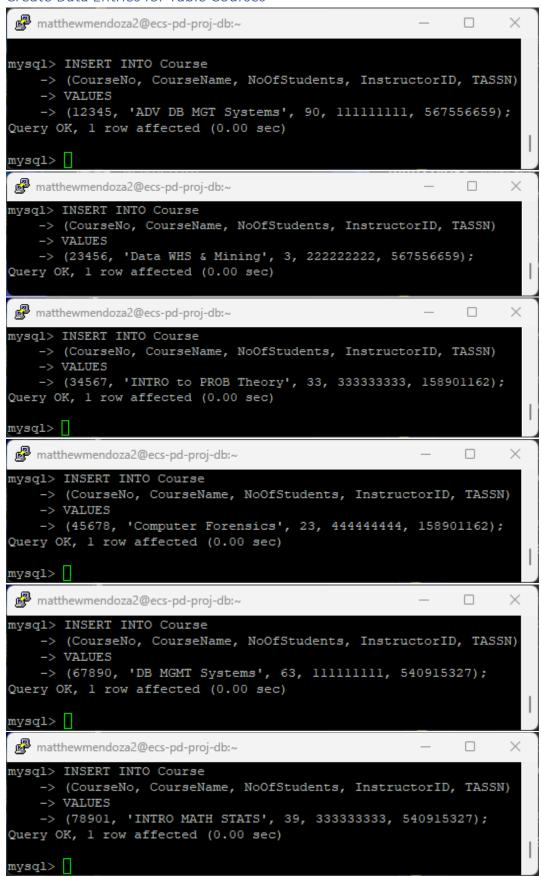
Populate Database - Insert Statements

Create Data Entries for Table Students

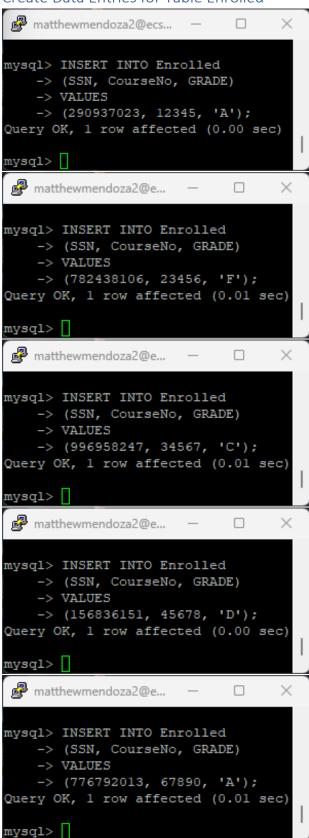


```
matthewmendoza2@ecs-pd-proj-db:~
                                                                                      \times
mysql> INSERT INTO Student
    -> (SSN, StudentName, Address, Email)
    -> VALUES
    -> (158901162, 'Mitsukuni Haninozuka', '142 Old Vernon St', 'mitsukuni nozuka@hostclub.com');
Query OK, 1 row affected (0.00 sec)
mysql>
 matthewmendoza2@ecs-pd-proj-db:~
                                                                                      \times
mysql> INSERT INTO Student
   -> (SSN, StudentName, Address, Email)
    -> VALUES
    -> (540915327, 'Takashi Morinozuka', '9245 Pineknoll Ave', 'takashi nozuka@hostclub.com');
Query OK, 1 row affected (0.00 sec)
mysql>
Create Data Entries for Table TAs
 matthewmendoza2@ecs... —
                                     \times
mysql> INSERT INTO TA
    -> (SSN, Salary)
    -> VALUES
    -> (567556659, 10000);
Query OK, 1 row affected (0.00 sec)
mysql>
 matthewmendoza2@ecs... —
                              \times
mysql> INSERT INTO TA
    -> (SSN, Salary)
    -> VALUES
    -> (158901162, 20000);
Query OK, 1 row affected (0.00 sec)
mysql>
 matthewmendoza2@ecs...
mysql> INSERT INTO TA
    -> (SSN, Salary)
    -> VALUES
    -> (540915327, 30000);
Query OK, 1 row affected (0.01 sec)
mysql>
```

Create Data Entries for Table Courses



Create Data Entries for Table Enrolled



Create Data Entries for Table Instructors

```
matthewmendoza2@ecs-pd-proj-db:~
                                         X
mysql> INSERT INTO Instructor
   -> (Title, InstructorID, InstructorName)
    -> VALUES
    -> ('Professor', 111111111, 'Ying Jin');
VALUES
('Professor', 222222222, 'Anna Baynes');
INSERT INTO Instructor
(Title, InstructorID, InstructorName)
VALUES
('Professor', 333333333, 'Xiaoyan Sun');
INSERT INTO Instructor
(Title, InstructorID, InstructorName)
VALUES
('Professor', 555555555, 'Haiguan Chen');
INSERT INTO Instructor
(Title, InstructorID, InstructorName)
VALUES
('Professor', 66666666, 'Herbert Mayer');
Query OK, 1 row affected (0.01 sec)
mysql>
mysql> INSERT INTO Instructor
    -> (Title, InstructorID, InstructorName)
   -> VALUES
   -> ('Professor', 222222222, 'Anna Baynes');
Query OK, 1 row affected (0.00 sec)
mysql>
mysql> INSERT INTO Instructor
    -> (Title, InstructorID, InstructorName)
   -> VALUES
   -> ('Professor', 333333333, 'Xiaoyan Sun');
Query OK, 1 row affected (0.00 sec)
mysql>
mysql> INSERT INTO Instructor
    -> (Title, InstructorID, InstructorName)
   -> VALUES
   -> ('Professor', 555555555, 'Haiquan Chen');
Query OK, 1 row affected (0.01 sec)
mysql>
mysql> INSERT INTO Instructor
    -> (Title, InstructorID, InstructorName)
   -> VALUES
   -> ('Professor', 66666666, 'Herbert Mayer');
Query OK, 1 row affected (0.00 sec)
mysql>
```

Create Data Entries for Table Classrooms

```
mysql> INSERT INTO Classroom
-> (RoomNo, Building, Capacity)
-> VALUES
-> (202, 'SQU', 30);
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> INSERT INTO Classroom
-> (RoomNo, Building, Capacity)
-> VALUES
-> (101, 'RVR', 30);
Query OK, 1 row affected (0.01 sec)
```

Create Data Entries for Table OnlineCourses

```
matthewmendoza2@ecs-pd-proj-db:~
                                                                                 X
                                                                           mysql> INSERT INTO OnlineCourse
    -> (CourseNo, URL)
    -> VALUES
    -> (12345, 'https://csus.zoom.us/j/97924806971');
INSERT INTO OnlineCourse
(CourseNo, URL)
VALUES
(23456, 'https://csus.zoom.us/j/7043055709');
INSERT INTO OnlineCourse
(CourseNo, URL)
VALUES
(45678, 'https://csus.zoom.us/j/99963148416');Query OK, 1 row affected (0.00 sec)
mysql>
mysql> INSERT INTO OnlineCourse
    -> (CourseNo, URL)
    -> VALUES
   -> (23456, 'https://csus.zoom.us/j/7043055709');
Query OK, 1 row affected (0.00 sec)
mysql>
mysql> INSERT INTO OnlineCourse
    -> (CourseNo, URL)
    -> VALUES
    -> (45678, 'https://csus.zoom.us/j/99963148416');
Query OK, 1 row affected (0.00 sec)
mysql>
```

Create Data Entries for Table InPersonCourses

```
matthewmendoza2@ecs-pd-proj-db:~
                                                         \times
mysql>
mysql> INSERT INTO InPersonCourse
    -> (CourseNo, RoomNo, Building, ClassTime)
    -> VALUES
    -> (34567, 202, 'SQU', '9:00 am');
Query OK, 1 row affected (0.00 sec)
mysql>
mysql> INSERT INTO InPersonCourse
   -> (CourseNo, RoomNo, Building, ClassTime)
    -> VALUES
    -> (56789, 202, 'SQU', '12:00 pm');
ERROR 1406 (22001): Data too long for column 'ClassTime' at row 1
mysql> INSERT INTO InPersonCourse
    -> (CourseNo, RoomNo, Building, ClassTime)
    -> VALUES
   -> (67890, 101, 'RVR', '1:30 am');
Query OK, 1 row affected (0.00 sec)
mysql>
mysql> INSERT INTO InPersonCourse
    -> (CourseNo, RoomNo, Building, ClassTime)
    -> VALUES
    -> (78901, 101, 'RVR', '2:00 pm');
Query OK, 1 row affected (0.01 sec)
mysql>
```

CREATE VIEWS

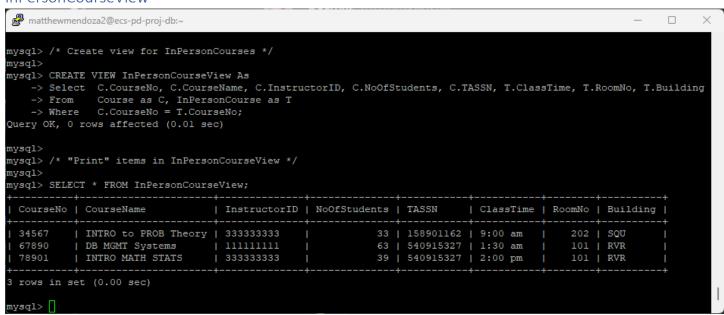
TAView

```
matthewmendoza2@ecs-pd-proj-db:~
                                                                                                \times
mysql> /* Create view for TAs */
mysql>
mysql> CREATE VIEW TAView As
   -> Select S.SSN, S.StudentName, S.Address, S.Email, T.Salary
   -> From Student as S, TA as T -> Where S.SSN=T.SSN;
Query OK, 0 rows affected (0.00 sec)
mvsal>
mysql> /* "Print" items in TAView */
mysql>
mysql> SELECT * FROM TAView;
                                                                                           | Salary
           | StudentName
                                  | Address
                                                          | Email
 567556659 | Kyoya Ootori
                                | 756 Pennington Road | kyoya_ootori@hostclub.com
                                                                                          10000
 158901162 | Mitsukuni Haninozuka | 142 Old Vernon St | mitsukuni nozuka@hostclub.com | 20000
 540915327 | Takashi Morinozuka | 9245 Pineknoll Ave | takashi nozuka@hostclub.com | 30000
3 rows in set (0.00 sec)
mysql>
```

OnlineView

```
matthewmendoza2@ecs-pd-proj-db:~
                                                                                                                \times
                                                                                                          mysql> /* Create view for OnlineCourses */
mvsql>
mysql> CREATE VIEW OnlineCourseView As
   -> Select C.CourseNo, C.CourseName, C.InstructorID, C.NoOfStudents, C.TASSN, W.URL
              Course as C, OnlineCourse as W
   -> Where C.CourseNo = W.CourseNo;
Query OK, 0 rows affected (0.00 sec)
mysql>
mysql> /* "Print" items in OnlineCourseView */
mysql>
mysql> SELECT * FROM OnlineCourseView;
                                | InstructorID | NoOfStudents | TASSN
| CourseNo | CourseName
 12345
          | ADV DB MGT Systems | 1111111111
                                                           90 | 567556659 | https://csus.zoom.us/j/97924806971
                                                           3 | 567556659 | https://csus.zoom.us/j/7043055709
 23456
          | Data WHS & Mining | 222222222
 45678
          | Computer Forensics | 444444444
                                                           23 | 158901162 | https://csus.zoom.us/j/99963148416
3 rows in set (0.00 sec)
mysql>
```

InPersonCourseView



Drop View and Table

```
matthewmendoza2@ecs-... —
mysql> SHOW TABLES;
 Tables_in_CSC174038 |
 Classroom
 Course
 Enrolled
 InPersonCourse
 InPersonCourseView |
 Instructor
 OnlineCourse
 OnlineCourseView
 Student
 TAView
11 rows in set (0.00 sec)
mysql> DROP VIEW TAView;
Query OK, 0 rows affected (0.00 sec)
mysql> DROP VIEW OnlineCourseView;
Query OK, 0 rows affected (0.00 sec)
mysql> DROP VIEW InPersonCourseView;
Query OK, 0 rows affected (0.00 sec)
mysql> DROP TABLE Enrolled;
Query OK, 0 rows affected (0.00 sec)
mysql> DROP TABLE Instructor;
Query OK, 0 rows affected (0.01 sec)
mysql> DROP TABLE OnlineCourse;
Query OK, 0 rows affected (0.01 sec)
mysql> DROP TABLE InPersonCourse;
Query OK, 0 rows affected (0.01 sec)
mysql> DROP TABLE Course;
Query OK, 0 rows affected (0.01 sec)
mysql> DROP TABLE TA;
Query OK, 0 rows affected (0.01 sec)
mysql> DROP TABLE Student;
Query OK, 0 rows affected (0.01 sec)
mysql> DROP TABLE Classroom;
Query OK, 0 rows affected (0.00 sec)
mysql> SHOW TABLES;
Empty set (0.00 sec)
mysql>
```

Initial Setup – self reference for future assignments

- 1. VPN, GlobalProtect, to the campus network using your SacLink account.
- 2. Use SSH to connect to the server. Type "ecs-pd-proj-db.ecs.csus.edu" as the host name.
 - a. **If using MacOS:** ssh saclinkUserName@ ecs-pd-proj-db.ecs.csus.edu
- 3. Enter your SacLink user name and password
- 4. Then type the following command: mysql -h ecs-pd-proj-db.ecs.csus.edu -u dbUserName -p
 - use your professor assigned dbUserName; for example,
 mysql -h ecs-pd-proj-db.ecs.csus.edu -u CSC123456 -p
- 5. Enter your professor assigned password
 - a. **For example**: Csc134 123456789
- 6. Enter: use [provided dbUserName]
 - a. For example

mysql> use CSC123456

Database changed

